

Pengembangan jaringan sensor nirkabel pada ASV (*Autonomous Surface Vehicles*) menggunakan protokol *UART* (*Universal Asynchronous Receiver – Transmitter*) sebagai komunikasi data di lautan berbasis *Radio frequency transceiver 3DR* (*The development of wireless sensor networks in ASV (*Autonomous Surface Vehicles*) uses the *UART Protocol* (*Universal Asynchronous Receiver – Transmitter*) as data communication in the ocean based on *3DR radio frequency transceiver*).*

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ABSTRACT

ASV (*Autonomous Surface Vehicles*) is mechanical design that combined with electronic control system, sensors and actuators that are useful for monitoring water and freshwater vehicles, and so on. This study focuses on developing wireless sensor networks on the ASV with the help of 3DR RF transceivers as data communication tools, sensors that have been installed in ASV will record oceanographic data on the sea for coral reef growth. From the RF transceiver 3DR will send data in the form of data that have been processed on an electronic device and displayed on an ASV monitoring system desktop application.

Keywords : ASV, *Radio frequency transceiver 3DR*, sensors, actuators, control system, wireless sensor network, *UART*, *desktop application*.